

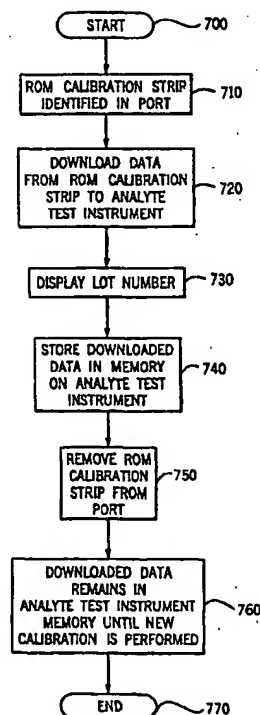


INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : G01N 33/487, G05B 19/12, G06K 19/07, G07C 3/04, 1/00	A3	(11) International Publication Number: WO 00/33072 (43) International Publication Date: 8 June 2000 (08.06.00)
(21) International Application Number: PCT/US99/27312 (22) International Filing Date: 17 November 1999 (17.11.99) (30) Priority Data: 60/110,227 30 November 1998 (30.11.98) US (71) Applicant: ABBOTT LABORATORIES [US/US]; CHAD 0377/AP6D-2, 100 Abbott Park Road, Abbott Park, IL 60064-6050 (US). (72) Inventors: DEWEESE, Marshall, D.; 32 Duxbury Road, Newton, MA 02459 (US). CARAYANNOPOULOS, Leonidas; Apartment 2, 929 Broadway, Somerville, MA 02144 (US). PARKS, Joel, M.; 13 Ledgewood Drive, Bedford, MA 01730 (US). AMES, William, H.; 141 Lovell Road, Holden, MA 01520 (US). (74) Agents: WEINSTEIN, David, L. et al.; Abbott Laboratories, CHAD 0377/AP6D-2, 100 Abbott Park Road, Abbott Park, IL 60064-6050 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> (88) Date of publication of the international search report: 23 November 2000 (23.11.00)

(54) Title: ANALYTE TEST INSTRUMENT HAVING IMPROVED CALIBRATION AND COMMUNICATION PROCESSES**(57) Abstract**

An analyte test instrument having improved calibration and communication processes. The instrument employs a calibration method that allows it to communicate with any one of a plurality of data storage strips. A data storage strip including a memory device is inserted into the test port of the instrument. The data storage strip is identified, and the instrument establishes communications with the data storage strip using a protocol corresponding to the data storage strip. Second, the instrument employs a method for ensuring that the instrument is operated using valid calibration strips and test strips. The instrument determines whether one or more of test parameters stored in the instrument is invalid for a test strip inserted into the test port of the instrument. If a test parameter is invalid, an indication of the invalid strip parameter is displayed on the display. Finally, the instrument utilizes a method for determining the actual date and time of events that occurred before the instrument was provided with current date and time.



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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 99/27312

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N33/487 G05B19/12 G06K19/07 G07C3/04 G07C1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N G05B G06K G07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 08544 A (ANDCARE INC) 6 March 1997 (1997-03-06)	1,9,23
X	page 2, line 25 - line 26 page 4, line 19 - line 26 page 13, line 1 - line 5	1-3,23
Y	page 16, line 11 -page 17, line 6 page 21, line 3 - line 5 page 26, line 8 - line 13 page 38, line 1 - line 22 page 39, line 12 - line 22	10-15
Y	WO 97 29847 A (SELCARE INC) 21 August 1997 (1997-08-21)	10-15
A	page 4, line 18 - line 35 page 3, line 20 -page 4, line 14 page 5, line 19 - line 23; figures 6A-6E page 7, line 21 - line 28; figures 6A-E	1-9,16, 23-25
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

16 June 2000

Date of mailing of the international search report

23.06.00

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hocquet, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/27312

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98 19159 A (MERCURY DIAGNOSTICS INC ;ROE JEFFREY N (US); DOUGLAS JOEL S (US);) 7 May 1998 (1998-05-07) page 17, line 9 - line 16 ---	1,9,23
A	US 4 714 874 A (MORRIS JAMES R ET AL) 22 December 1987 (1987-12-22) column 3, line 49 -column 4, line 22 column 5, line 14 - line 23 column 8, line 1 - line 5 ---	1.
A	EP 0 651 250 A (KYOTO DAIICHI KAGAKU KK) 3 May 1995 (1995-05-03) page 8, line 20 - line 35; figures 1,4,5 ---	1
A	US 5 366 609 A (WHITE BRADLEY E ET AL) 22 November 1994 (1994-11-22) cited in the application column 5, line 66 -column 6, line 13 column 5, line 9 - line 16 column 8, line 13 - line 38 ---	1
A	GB 2 322 207 A (CUMMINS ENGINE CO INC) 19 August 1998 (1998-08-19) page 5, line 12 -page 6, line 12 page 11, line 17 - line 21 page 12, line 22 -page 13, line 9 page 14, line 3 -page 15, line 22 page 18, line 9 - line 23 page 19, line 4 -page 23, line 27 ---	18-22
A	US 4 628 193 A (BLUM ALVIN S) 9 December 1986 (1986-12-09) the whole document ---	18
A	DE 297 02 277 U (MUELLER & SEBASTIANI ELEK GMBH) 10 April 1997 (1997-04-10) the whole document -----	18

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 99/27312

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-17,23-25

Methods for using an analyte test instrument having a test port receiving test strips or data storage strips.

2. Claims: 18-22

Method for determining date and time in an analyte test instrument

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/US 99/27312

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9708544 A	06-03-1997	AU 6904496 A US 5873990 A	19-03-1997 23-02-1999
WO 9729847 A	21-08-1997	US 5989917 A AU 712812 B AU 2269397 A EP 0880407 A	23-11-1999 18-11-1999 02-09-1997 02-12-1998
WO 9819159 A	07-05-1998	AU 714676 B AU 5157598 A CN 1240027 A DE 19781162 T DE 29723400 U DE 29723665 U EP 0937249 A GB 2322444 A,B GB 2332943 A,B JP 11510915 T US 5872713 A	06-01-2000 22-05-1998 29-12-1999 11-03-1999 10-09-1998 25-03-1999 25-08-1999 26-08-1998 07-07-1999 21-09-1999 16-02-1999
US 4714874 A	22-12-1987	AU 570860 B AU 6498586 A CA 1260063 A DE 3675900 D EP 0225474 A JP 1770690 C JP 4063343 B JP 62113064 A	24-03-1988 14-05-1987 26-09-1989 10-01-1991 16-06-1987 30-06-1993 09-10-1992 23-05-1987
EP 0651250 A	03-05-1995	JP 7128338 A US 5589045 A US 5781455 A	19-05-1995 31-12-1996 14-07-1998
US 5366609 A	22-11-1994	AU 7093694 A CA 2153884 A EP 0746762 A JP 2702286 B JP 8502590 T WO 9429703 A	03-01-1995 22-12-1994 11-12-1996 21-01-1998 19-03-1996 22-12-1994
GB 2322207 A	19-08-1998	US 5941915 A DE 19752036 A JP 10240376 A	24-08-1999 20-08-1998 11-09-1998
US 4628193 A	09-12-1986	NONE	
DE 29702277 U	10-04-1997	NONE	

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